

Notice of Allowability

Application No.

09/508,710

Examiner

David H Kruse

Applicant(s)

COLE ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 29 August 2003.
2. ☒ The allowed claim(s) is/are 2-4,8-15,20-23,25-27,29-32,43,77,78 & 81, renumbered 3,2,1,4-11,12,13,15,17,19-21,22-25,26,14,16 & 18 respectively.
3. ☒ The drawings filed on 15 March 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>11/13</u> . |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rochelle K. Seide on 13 November 2003.

The application has been amended as follows:

The Abstract filed 21 January 2003 has been replaced with the following:

--This invention relates to isolated polynucleotides encoding a wheat glutathione transferase subunit (GST) as well as host cells and plants transformed therewith. The invention also relates to methods of using the isolated polynucleotides to make herbicide resistant plant cells and plants, and to methods of selecting transformed plant cells in the presence of an herbicide.--

The Title of the Invention has been replaced with -- ISOLATED NUCLEIC ACIDS ENCODING A WHEAT GLUTATHIONE TRANSFERASE, PLANTS TRANSFORMED THEREWITH AND METHODS OF USE THEREOF --.

In the claims:

At claim 12, "cell transfected" has been amended to read -- host cell transformed --.

At claim 14, line 1, "A cell" has been amended to read -- A host cell --.

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At claim 20, line 4, "further polynucleotide" has been amended to read --
additional polynucleotide --.

Claim 21(amended) A method of producing a first-generation transgenic plant comprising:

(a) transforming a plant cell with the expression vector according to claim 11 to produce a transformed plant cell; and

(b) regenerating [the transformed plant cell to produce] a first-generation transgenic plant from said transformed plant cell.

Claim 22(amended) A method of producing a transgenic plant seed comprising:

(a) transforming a plant cell with the expression vector according to claim 11 to produce a transformed plant cell:

(b) regenerating [the transformed plant cell to produce] a transgenic plant from said transformed plant cell; and

(c) producing a transgenic seed from the transgenic plant so produced.

Claim 23(amended) A method of producing a [second or successive generation] transgenic progeny plant from the first-generation transgenic plant produced by the method of claim 21 comprising serially propagating said first-generation transgenic plant through one or more successive generations to produce a second or successive generation transgenic progeny plant.

Claims 26(amended) A transgenic plant cell callus comprising or produced from the plant cell according to claim 13 or claim 25.

Claim 27(amended) A transgenic plant cell callus [comprising the cell according to claim 13, or produced from the transgenic plant cell, first generation plant, plant seed or progeny plant produced from the transgenic plant cell of claim 25] produced from the first generation transgenic plant of claim 77, the transgenic plant seed of claim 78 or the transgenic progeny plant of claim 81.

At claim 29, line 4, "a further" has been amended to read -- an additional --.

At claim 30, line 2, "bounded" has been replaced with -- flanked --.

Claim 32(amended) A method of producing [transforming] transformed [a] plant cells [or of producing] a transformed plant cell culture or transgenic plant, the method comprising:

(a) providing [a] untransformed plant cells which [is] are susceptible to a herbicide whose herbicidal activity is reduced by a dimeric protein comprising two GST subunits:

(b) transforming the plant cells with the vector according to claim 31;

(c) cultivating the transformed cells under conditions that allow the expression of the polynucleotide encoding a GST subunit [to provide a polypeptide comprising a GST subunit, wherein the polypeptide comprising the GST subunit can form a dimer with another GST subunit]; [and/or]

(d) selecting transformed cells in the presence of said herbicide that are tolerant to said herbicide as compared to untransformed cells; and optionally

[(c')](e) producing cell cultures or regenerating plants from said transformed cells
[regenerating the cell to give a cell culture or plant such that the polynucleotide is a GST

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subunit, wherein the expressed to provide a polypeptide comprising polypeptide comprising the GST subunit can form a dimer with another GST subunit];

[(d)](f) contacting said cell cultures or plants with said herbicide [contacting the cell, cell culture or plant with the herbicide whose herbicidal activity is reduced by the dimeric protein, and to which the untransformed plant cell was susceptible]; and

[(e)](g) selecting [cells,] cell cultures or transgenic plants that are less susceptible to the herbicide than are corresponding untransformed [cells,] cell cultures or plants.

Claim 43(amended) A method of controlling the growth of weeds at a locus where [a] the transgenic first-generation plant of claim 77, the transgenic plant seed of claim 78 or the transgenic progeny plant of claim 81 [produced from the transgenic plant cell of claim 25] is being cultivated, said method comprising applying to [the] said locus a herbicide whose herbicidal properties are reduced by a dimeric GST protein.

At claim 77, "first generation" has been amended to -- first-generation --.

Claim 78(amended) A transgenic plant seed [or progeny plant] produced by the method according to claim 22, or a transgenic plant produced from said transgenic plant seed.

Claim 81(new) A transgenic progeny plant produced by the method of claim 23.

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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (703) 306-4539. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Amy Nelson can be reached at (703) 306-3218. The fax telephone number for this Group is (703) 872-9306 Before Final or (703) 872-9307 After Final.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703) 308-0196.

A handwritten signature in black ink, appearing to read "Amy Nelson", with a stylized flourish at the end.

David H. Kruse, Ph.D.
14 November 2003

AMY J. NELSON, PH.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600